Remarks

This Amendment is responsive to the **November 14, 2005** Office Action. Reexamination and reconsideration of **claims 1-18 and 43** is respectfully requested.

Summary of The Office Action

Claims 1, 3, 4, 5, 6, 7, 8, 10, 12, 13, 14, and 15 were rejected under 35 U.S.C. §102(b) as being anticipated by Johnson (US Pat. No. 4,680,859).

Claims 2, 9, 11, 16, 17, and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Johnson (US Pat. No. 4,680,859) in view of Cowger (US Pat. No. 6,343,857).

The Present Amendment

Claims 19-42 have been canceled as being directed to non-elected claims.

Claim 43 is added as being dependent upon independent claim 14. Support for claim 43 can be found in at least Figures 7h, 7i, 8, 8a, or 9 and 9a, and their corresponding paragraphs of the specification. For example, Figures 8 and 8a (or 9 and 9a) show features 714, 724 and 734 that are fluid passageways that allow etchant to flow (shown by dotted arrows) and remove interior portions of the substrate 300c, which forms part of the slot 702. This can be performed with other layers 710, 720, and 730 being already formed on the substrate 300c. Thus, no new matter has been added.

Claims 44 and **45** are newly added as being dependent upon independent claim 14. Support for these claims can be found in at least Figure 6 and corresponding paragraph [0040] of the present specification. Thus, no new matter has been added.

Applicant respectfully submits that the references fail to teach or suggest the features of new claims 43-45. Thus, claims 43-45 should be in condition for allowance.

The Claims Patentably Distinguish Over the References of Record

Independent Claim 1

Claim 1 has been amended to include one or more dummy features that allow at least a portion of the slot to be formed after the orifice layer is positioned over the thin-film. One example of these features is supported by paragraph [0045] of the present specification. Thus, no new matter has been added.

Johnson fails to teach or suggest claim 1. In particular, Johnson does not teach or suggest that a fluid slot is formed after the orifice layer is positioned over a thin-film and thus fails to teach or suggest any type of features that allow this to happen. Cowger also fails to teach or suggest the claimed device and fails to cure the shortcomings of Johnson.

Since claim 1 recites features not taught or suggested by the references, individually or in combination, claim 1 patentably distinguishes over the references. Accordingly, dependent claims 2-6 also patentably distinguish over the references and are in condition for allowance.

Regarding dependent **claim 3**, the Office Action cites Johnson column 4, lines 27-39 to teach the limitation of features that aid in slot formation. Application respectfully points out that the cited section of Johnson is directed to a printing operation and has nothing to do with slot formation. Johnson begins this section with: "During an ink jet printing operation..." (column 4, line 27). Therefore, Johnson fails to teach or suggest any feature that aids in slot formation since the slot is already formed by the time printing occurs. For this additional reason, claim 3 patentably distinguishes over the references of record.

Additionally, dependent **claim 6** recites that the reinforcement structure extends within the slot. Therefore, the orifice plate 12 of Johnson fails to teach or suggest claim 6 since orifice plate 12 lies on top of slot 16. Thus, claim 6 patentably distinguishes over the references of record for this additional reason. Support for the amended claim language appears in at least paragraph [0038] of the present specification. Thus, no new matter is presented.

Independent Claim 7

Applicant respectfully submits that Johnson fails to teach or suggest claim 7. For example, claim 7 recites a slot being defined by end walls wherein each end wall has an endwall portion which intersects the first surface at an obtuse angle as measured through the substrate material. To provide one reference to better understand this feature, one example of the feature is illustrated in Figure 4 of the present application with reference to angles α and β. Johnson, in Figure 1, does not teach or suggest this feature anywhere in the figures or specification. Additionally, the Office Action cites column 3, lines 29-35 and lines 49-53 of Johnson. Applicant has reviewed this section and finds no mention of the claimed slot configuration. Johnson is not concerned with the slot configurations and does not provide any details of its slot. Thus, Johnson fails to teach the recited slot configuration.

Claim 7 further recites that each end wall portion (of the slot) is formed, at least in part, with the layer assembly in place over the substrate. Johnson fails to teach or suggest this feature since the slot in Johnson is not formed with the layer assembly in place. Johnson teaches the slot 16 is formed before the layer assembly is positioned. In particular, column 3, lines 29-30 state that pieces of the printhead are "brought together" meaning that the slot 16 is already formed and then the printhead is assembled (see column 3, lines 29-32, and lines 43-45. For this additional reason, Johnson fails to teach or suggest claim 7 and the rejection should be withdrawn.

Since claim 7 recites features not taught or suggested by the references, individually or in combination, claim 7 patentably distinguishes over the references. Accordingly, dependent **claims 8-13** also patentably distinguish over the references and are in condition for allowance.

Dependent **Claim 9** recites wherein at least one of the multiple firing chambers are formed to aid in a slot forming process that forms the slot and are not utilized in fluid ejection. The amended language is supported by, for example, paragraph [0045] of the present application. Cowger was cited (column 2, lines 24-34) as teaching claim 9. However, Cowger simply describes selectively firing or not firing ink chambers during a printing operation. Cowger further does not describe a slot forming process.

The present amendment clarifies that the firing chambers are formed to aid in slot formation, which Cowger fails to teach, and are not utilized in fluid ejection. Cowger's firing chambers are always used in fluid ejection although they are inactive at times. Claim 9 recites that one or more firing chambers are not utilized. For this additional reason, claim 9 patentably distinguishes over the references of record.

Independent Claim 14

Claim 14 recites a region of the slot proximate the first surface approximates a portion of a trapezoid when viewed transverse a short axis of the slot and wherein at least a portion of the slot is formed after the orifice layer is formed over the first surface. The Office Action cites Figure 1 and slot 16 of Johnson to teach the trapezoid limitation. However, Johnson at best shows a dashed trapezoid outline of slot 16 with no corresponding description. The outline defines the entire slot 16 from top to bottom, and from side to side. Conversely, claim 14 recites that only a portion of the slot is defined as "the slot proximate the first surface approximates a portion of a trapezoid..." Therefore, Johnson fails to teach or suggest the features of claim 14 and does not support the rejection.

Additionally, claim 14 recites that at least a portion of the slot is formed after the orifice layer is formed over the first surface. As explained previously, Johnson fails to teach or suggest this feature since the slot in Johnson is not formed with the layer assembly in place. Johnson teaches the slot 16 is formed before the layer assembly is positioned. In particular, column 3, lines 29-30 state that pieces of the printhead are "brought together" meaning that the slot 16 is already formed and then the printhead is assembled (see column 3, lines 29-32, and lines 43-45. For this additional reason, Johnson fails to teach or suggest claim 14 and the rejection should be withdrawn.

Since claim 14 recites features not taught or suggested by the references, individually or in combination, claim 14 patentably distinguishes over the references. Accordingly, dependent **claims 15-18** and **43-45** also patentably distinguish over the references and are in condition for allowance.

Conclusion

For the reasons set forth above, **claims 1-18 and 43-45** patentably and unobviously distinguish over the references of record and are now in condition for allowance. An early allowance of all claims is earnestly solicited.

Respectfully submitted,

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